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41838 7590 03/26/2010 GENERAL ELECTRIC COMPANY (PCPI) C/O FLETCHER YODER P. O. BOX 692289 HOUSTON, TX 77269-2289			EXAMINER SUERETH, SARAH ELIZABETH	
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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* MAHENDRA MADHUKAR PATIL and DAVID JOSEPH  
NAJEWICZ

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Appeal 2009-003656  
Application 10/812,338  
Technology Center 3700

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Decided: March 26, 2010

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Before MICHAEL W. O'NEILL, STEFAN STAIKOVICI, and  
KEN B. BARRETT, *Administrative Patent Judges*.

O'NEILL, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Mahendra Madhukar Patil and David Joseph Najewicz (Appellants)  
seek our review under 35 U.S.C. § 134 of the final rejection of claims 1-14

and 16-43. Appellants canceled claim 15. We have jurisdiction under 35 U.S.C. § 6(b) (2002).

### *The Invention*

The claimed invention is to a kitchen ventilation system.

Claim 1, reproduced below, is illustrative of the subject matter on appeal.

1. A kitchen ventilation system comprising:
  - a sensor for detecting a chemical composition over an active zone of a cooktop;
  - an air moving device for displacing air including the chemical composition;
  - an air flow direction control device for directing air displaced by the air moving device between exhaust and recirculation flow paths; and
  - control circuitry coupled to the sensor, to the air moving device and to the air flow direction control device for regulating operation of the air moving device and a position of the air flow direction control device based upon signals from the sensor.

### *The Prior Art*

The Examiner relies upon the following as evidence of unpatentability:

Bowen	US 4,146,016	Mar. 27, 1979
Wang	US 5,236,595	Aug. 17, 1993
Melink	US 6,170,480 B1	Jan. 9, 2001
Morton	US 6,349,716 B1	Feb. 26, 2002
Jensen	US 6,521,859 B2	Feb. 18, 2003

*The Rejections*

The following Examiner's rejections are before us for review:

(1) Claims 1-7, 14-20, 22-28 and 35-43 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Melink in view of Bowen, further in view of Morton.

(2) Claims 8, 9, 11-13, 21, 29, 30, and 32-34 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Melink in view of Bowen, further in view of Morton, and further in view of Wang.

(3) Claims 10 and 31 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Melink in view of Bowen, further in view of Morton and Wang, and further in view of Jensen.

SUMMARY OF DECISION

We AFFIRM.

OPINION

*Issue*

Whether the Examiner erred in combining the collective teachings of the prior art in rejecting the claims under § 103 on the grounds of obviousness.

*Analysis*

Rejection (1) -- Obviousness based on Melink, Bowen, and Morton

*Claims 1-7 and 14-20*

Appellants do not separately argue claims 1-7 and 14-20. As such, claim 1 is representative and claims 2-7 and 14-20 stand or fall with claim 1.

Appellants' Specification discloses that the chemical compositions that are sensed include cooking fumes, vapors, smoke, and combustion byproducts. Spec. 9, para. [0037]. Melink describes that the sensor 82 detects water vapor, grease particulates, smoke, and aerosols generated by the cooking units 18. Col. 7, ll. 13-17. As such, Melink discloses the chemical composition sensor recited in Appellants' claim 1.

Bowen describes an adjustable damper that the Examiner found to meet the claimed air flow direction control device. Ans. 5. The Examiner found that a person having ordinary skill in the art would apply the teachings of Bowen to Melink in order to avoid the difficulty of maintaining the interior temperature during the winter months as Melink describes. Ans. 5-6.

Bowen's damper is manually controlled. Morton describes that the output of sensor 60 automatically controls the multi-position damper 34. Col. 3, ll. 42-54. The Examiner found that a person having ordinary skill in the art would apply the teachings of Morton to the combined teachings of Melink and Bowen in order to have an adjustable damper controlled by a sensor. Ans. 6.

When a claim is simply the combination of old elements with each performing the same function as it had been known to perform and yields no more than one would expect from such an arrangement, "the combination [claim] is obvious." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007), citing *Sakraid v. Ag Pro, Inc.*, 425 U.S. 273, 282 (1976).

Applying the teachings of Bowen and Morton to the disclosed kitchen exhaust system of Melink yields a kitchen exhaust system that automatically adjusts the damper to direct the airflow for the reasons stated in Melink:

reducing the load on the HVAC system, reducing the room temperature or gas level, and improving the air quality for additional health and safety benefits. *See, e.g.*, Melink, Abstract. Having the chemical composition sensor present in Melink connected in a manner so as to moderate the adjustable damper would be combining known elements according to known methods which the Court in *KSR* held to be obvious unless the combination is beyond the level of ordinary skill and/or yields an unpredictable result. *KSR*, 550 U.S. at 416-417.

Appellants' Specification does not provide evidence that the combination of a chemical composition sensor with an adjustable damper would yield an unpredictable result or be beyond the ordinary skill level. Appellants have not argued nor present evidence that connecting a chemical composition sensor to a damper as set forth in the claim yields an unpredictable result or is beyond the level of skill of a person having ordinary skill in the art. Instead, the arguments focus on attacking Melink, Bowen, and Morton individually rather than viewing the combined teachings as a whole. Such individual arguments against each reference also do not highlight an error in the Examiner's rejection because nonobviousness cannot be established by attacking the references individually when the rejection is predicated upon a combination of prior art disclosures. *See In re Merck & Co.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986). "[I]t is not necessary that the inventions of the references be physically combinable to render obvious the invention under review." *In re Sneed*, 710 F.2d 1544, 1550 (Fed. Cir. 1983). The relevant inquiry is whether the claimed subject matter would have been obvious to those of ordinary skill in the art in light of the *combined teachings* of those references. *See In re Keller*, 642 F.2d 413, 425

(CCPA 1981). “Combining the *teachings* of references does not involve an ability to combine their specific structures.” *In re Nievelt*, 482 F.2d 965, 968 (CCPA 1973).

In view of the foregoing, the Examiner did not err in concluding the combined teachings of Melink, Bowen, and Morton render obvious claim 1. The rejection of claim 1 is sustained. Claims 2-7 and 14-20 fall with claim 1.

*Claims 22 and 28*

Appellants request claims 22 and 28 be considered together.

The Examiner found that Melink, in disclosing that the controller is configurable by the user, satisfies the claimed control circuitry as set forth in claims 22 and 28. Ans. 5.

Appellants contend Melink does not teach control of the operation of a vent and damper based upon site-specific factors. App. Br. 11.

Melink describes that the exhaust system is operated to provide different volume rates of exhaust which can be preset or vary in correlation with cooking by-products. Col. 7, ll. 49-65.

Melink also describes that the control module 72 includes a microprocessor controller 130 and memory 132 that receives the signals from the various sensors, and generates the signals to operate the motor controllers, thus operating the ventilation system in accordance with what has been sensed by the sensors. Melink describes that having a microprocessor controller permits various functions of the system to be adjusted and more reliably controlled. Melink describes that a user can program the desired comfort thresholds using an interface connected to the controller. The interface also displays the various operational conditions of

the system and presents menu options to input control data. Melink, additionally, describes that the microprocessor controller has sufficient processing power to control multiple exhaust systems and control other typical exhaust hood functions. Col. 10, ll. 38-67.

As found above, Melink describes using thresholds as guides to program the controller. A person of ordinary skill in the art would readily understand that any threshold would include a site-specific factor as a component. For instance, a person of ordinary skill in the art would not set the volume rate capacity lower than needed to properly vent the size of the kitchen in which the system is installed. To set the volume rate capacity too low, while saving energy, would not permit the cooking by-products to vent and thus could cause a hazardous situation. As such, a person having ordinary skill in the art would set the threshold volume capacity rate at a rate that can appropriately vent the size of the kitchen in which the exhaust system is installed.

In view of the foregoing, the Examiner did not err in finding Melink satisfies the control circuitry being configurable as set forth in the claims. The Examiner's rejection of claims 22 and 28 is sustained.

#### *Claims 35-43*

Appellants do not separately argue claims 35-43. As such, claim 35 is representative and claims 36-43 stand or fall with claim 35.

The Examiner found that by Melink disclosing structure to vary the speed of a fan, such variance would reduce noise. Ans. 5.

Appellants argue that Melink does not teach regulating noise based upon signals from the sensor and characteristics of the device. According to



Appellants, “Melink discloses increasing or decreasing a volume rate of exhaust to avoid sudden cycling of the motor and/or unsettling variations in noise or air flow.” App. Br. 12.

Melink describes switching volume rate capacity in a ramp-wise fashion in order to avoid rapid cycling and to reduce noise or other drawbacks associated with sudden changes in volume rate capacity. Col. 8, ll. 42-46.

Familiar items may have obvious uses beyond their primary purpose. *KSR*, 550 U.S. at 420.

Melink explicitly discusses ramping the rate to reduce noise. As found above, Melink’s controller operates the fan based on the signals from the sensors and is programmed for operating at threshold values. These thresholds would have a characteristic component of the system as noted above. Therefore, the controller is readily capable of controlling a combination of a damper and vent based on the signals received and the characteristics of the damper and vent in order to reduce noise during operation.

In view of the foregoing, the Examiner did not err in finding Melink satisfies the control circuitry regulating the system to reduce noise during operation as set forth in the claim 35. The Examiner’s rejection of claim 35 is sustained. Claims 36-43 fall with claim 35.

Rejection (2) -- Obviousness based on Melink, Bowen, Morton, and Wang

With respect to this rejection, Appellants merely incorporate their arguments regarding the shortcomings of Melink, Bowen, and Morton, which as noted above are not convincing as to demonstrate error on the part

of the Examiner, and state that Wang fails to cure those shortcomings, of which there are none, as noted above. Therefore, the rejection under § 103 of claims 8, 9, 11-13, 21, 29, 30, and 32-34 is sustained.

Rejection (3) -- Obviousness based on Melink, Bowen, Morton, Wang, and Jensen

Likewise, regarding this rejection, Appellants merely incorporate their arguments concerning the shortcomings of Melink, Bowen, and Morton, which as noted above are not convincing as to demonstrate error on the part of the Examiner, and state that Wang and Jensen fail to cure those shortcomings, of which there are none, as noted above. Therefore, the rejection under § 103 of claims 10 and 31 is sustained.

CONCLUSION

The Examiner did not err in combining the collective teachings of the prior art in rejecting the claims under § 103 on the grounds of obviousness.

DECISION

The Examiner's decision to reject the claims as obvious over the combined teachings of Melink, Bowen, Morton, Wang, and Jensen is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2007).

AFFIRMED

Appeal 2009-003656  
Application 10/812,338

mls

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